referred to the famous Mausoleum erected by Queen Artemisia over the remains of her husband, Mausolus, in the year 353 B.C. and lately referred to in our pages.

Few and rare were the examples of Greek art which could be made available under the laws of proportion which governed the arrangement of modern halls, chambers, churches, libraries, theatres, town-halls, prisons, and mansions. European travel, from St. Petersburg to Gibraltar, furnished a far more useful and practical source of education. By visiting and conversing with European architects; by examining their executed, and perusing their literary works, a complete digest and epitome of their experience might be obtained; and this would be the best course of study for the practical and ambitious architect. England alone furnished valuable means of instruction, rich as it was in masterly genius and excellent works. He never regretted the advice he had always given to his own scholars, to study the productions of their native land; and they had themselves acknowledged the advantages they had so derived.

Many who had enjoyed the greatest advantages from foreign travel had failed to profit by them; and many had achieved the highest distinction with no other aid than they could derive from books of travels and the resources of their own minds. Sir Christopher Wren, from want of means or other causes, had never travelled beyond Paris: and Brunelleschi was compelled by his necessities, whilst at Rome, to seek employment as a goldsmith, in order to pursue his architectural studies.

These strictures, however, on foreign travel did not apply to Italy in general, and more especially not to Rome, the direct source of all modern art. The Romans, eminently practical, approached architecture in the spirit of engineers; all their professional faculties were called forth in aid of law, learning, commerce, civilisation, and war; and with their knowledge of the arch and the dome, their works supplied a never-failing source of useful study. In Rome the student might trace the application of the elements of Grecian and all other ancient styles by the people of the empire; and side by side with them the admirable works of Raffaelle, Vignola, and the other great moderns, all of which he might apply in daily use; and the persevering investigation of which would prove to be time well spent.

Conspicuous among these works were the baths of ancient Rome. Of these we were told by classic authors that there were 800 in the imperial city, all more or less public. Fifteen of the more remarkable are still to be traced in their ruins, furnishing a grand treasury and storehouse of ancient art. The largest of these were the Baths of Caracalla, in which it is said that 109,000 persons might bathe between the hours of two and five daily. In proof of their enormous magnitude, the lecturer showed by a plan that they occupied a quadrangle equal in size to that formed by the lines of Pall-mall, St. James's-street, Piccadilly, and Regent-street; having St. James's-square nearly in the centre. He pointed out the admirable proportions and noble features of this stupendous work, its spacious halls and gardens, with other interesting features.

The decline of Roman architecture was then briefly traced, and the defects of the later important works pointed out. The palace of Diocletian presented a sumptuous plan, and an arrangement suggestive of oriental magnificence (and especially a corridor, worthy of particular study); but the architecture generally was below criticism. The works of the age of Justinian were further debased, and from the sixth century, architecture, as a fine art, was completely extinguished. In the twelfth century arose that Gothic architecture which displayed the most sublime equipoise, and the grandest effects, with the smallest comparative expense; and the religious and national associations of which must sanctify it in the hearts of all. Time would not allow him to dwell upon the many glories of that beloved architecture, nor the peculiar features of its German and other branches, which might be effectively introduced in this country.

WANTED, A RAMMER.

COULD not some modification of the steam-hammer, or pile-driver, be contrived that would apply to the ramming of paving-stones, and consolidating of gravelled or macadamized roads? The condition of both streets and roads seems to suggest that with a greater amount of consolidation, less of inequality and looseness would present themselves. Let the roller used on the gravel road be ever so satisfactory in principle, still its efficacy is limited by the proportioning of its weight to the animal power which is to overcome its inertia: not so where an impulsive force is put in operation by such a power as steam: the effect then produced will bear a different proportion to the dead weight of the machine, and to the power of the animal which may be employed to move it from place to place. Let the pavior even wield his rammer with ever so good a will, and bring good thew, sinew, and muscle to bear on his work, still the effect of the momentum which he can impart is limited in like manner; and is, we may infer, inferior to the action of endless trains of wheeled vehicles. To render our streets and roads more commensurate in solidity to the duty they have to perform, some more weighty apparatus than a one-man rammer or a two-horse roller is wanted: the effect of these, by the way, may be nearer a par than they seem, seeing the difference in the manner of their application; the main difference being in the extent of the ground gone over. It seems to us that a kind of frame-work, containing a number of heavy vertical rammers, say the former a yard square, and the latter nine in number, and lifted by steam power, in some such succession as may be imagined in a horse with as many feet, would effect the result we have in view; and if it were considered liable to the objection of leaving the ground uneven on the surface, let it be combined with a roller in rear, sufficiently heavy to obliterate the inequalities.

While on the subject of streets and roads, we may point out another want, namely, a trottoir for luggage-bearers: it is quite obvious that in London's thoroughfares, with its incessant trains of equine traffic, the porters cannot be driven to the roadway; while it is equally palpable that the bearing of head-loads of furniture, with wooden legs projecting at every imaginable angle, to the imminent hazard of the eyes and limbs of thought-bound wayfarers, is a growing evil that threatens to become intolerable. Those streets that would admit of it might be divided into five parts in their width, instead of three; the centre, as now, for the horse traffic, the house-paths for pedestrians, and the intermediate ways for all persons bearing ungainly burthens,—butchers' trays, bakers' baskets, and the like: the porters' paths might be a slight step lower than the house-paths, but the kennel should run outside the former, only affording facility for carriages crossing to set down their fares at the curb of the latter. For this purpose, the house-paths could, if necessary, spare a portion of their present width, the roadway supplying the remainder. The police would see to the former being kept sacred to their special purpose: the quality of the paving in the porters'-paths might be a superior square-dressed granite, in longitudinal courses.

The extensive use, in town, of the macadamizing principle of road-making renders of interest any suggestion for ameliorating its defects: in the summer of 1824, experiments were made by Mr. Gilmore, surveyor of the turnpike-road between Durham and Tyne Bridge, which had for their object the binding of the surface and laying the dust: these results, it was stated, were successfully obtained by the application of the oil of salt, which had the effect of rendering the paving firm and smooth,—the dust being more effectually mastered than it had previously been with water. Such a process might be a little expensive in the first instance; but if it superseded in a great degree the necessity for watering, it would probably be found economical in the main. Summer is coming: down with the dust.

In the same year as the above, a patent was granted to Mr. A. H. Chambers, for the following method of constructing paved carriage-ways: a bed of well-compressed clay, with a channel on each side for carrying off water, was to be first laid down;—upon this a thin stratum of sand, and upon the latter, the ordinary granite paving-stones: the latter, however were to be laid with their broad ends downwards, the interstices filled with hard materials, and the whole covered with some burned and vitrified substance, incapable of reduction, by moisture or friction, into a soluble matter. Now, some part of this is very sensible: the stones, instead of having their fangs planted into the pliant soil, to gnaw their way downward, and force the soft matter below to escape upward, and form mud or dust upon the surface, are laid so as to obviate that effect, and also to receive superimposed pressure within the area of their respective bases. It only wants that their apexes should be made parallel with their beds, and the interstices be filled with small macadamizing, served with the oil of salt as above described, to form what would probably prove a good lasting causeway.

The last of such plans that we shall at present notice, is one proposed in the *London Journal of Arts* in 1825, by an Ayrshire farmer, Mr. John Finlayson. The method of paving which he proposed, consisted in setting blocks of wood, with the grain vertical, into sockets formed for them in iron castings; the blocks to be about 18 inches long, and 5 inches square at top and bottom ends, but increasing in size to a point a little below the middle: up to this point they were to be fitted solidly into the castings, which were to be about 4½ by 2½ feet each, solid on the underside, and containing 18 tapering sockets: a perfectly even and solid bed to be prepared for receiving the castings, and the tapering interstices between the blocks from the edges of the sockets upwards, to be filled with gravel or broken stones, in order to wedge and firmly confine the blocks, and prevent their being shaken or displaced by the carriage-wheels rolling over them. The advantages offered by this scheme were compactness, non-liability to derangement, ease of removal for alterations in pipes or sewerage, corresponding rapidity of replacement, comparatively little wear and tear, therefore little mud in wet or dust in dry weather, deadening of the noise, &c. Mr. Finlayson recommended larch fir as the least liable to decay, and being tough and difficult to be split or torn asunder. He had tried the system in a pavement on the farm premises, in juxtaposition with granite paving, using wooden planks as a bottom, and after twenty-five years the granite had undergone more wear than the wood; while some blocks of the latter, taken up, proved to be as fresh as the day they were laid. Two great causes of failure in pavements are the defective nature of the bed, and the materials being laid with their narrow side downwards.

ST. STEPHEN'S, WALBROOK.—We are requested to mention that the actual cost of the stained glass in the east window was 350*l*. Further, that the gentleman alluded to in our last as being the architect engaged on the painted window is Mr. Joseph Gwilt, of Abingdon-street.

THE STRIKES AND DIFFERENCES IN THE IRON TRADES.—The nailors and chain-makers about Bromsgrove and Cradley, Stourbridge, Sedgley, Rowley Regis, &c. have been out on strike in consequence of recent reductions of wages to a very low standard. The strikers are said to have conducted themselves with propriety since the occurrence of the strike. The masters, it is said, have agreed to restore their wages to the standard required by the men.——The *Manchester Guardian* states that, up to Monday week, the number of men who had resumed work in the shops of the members of the Association of Employers in Lancashire, so far as concerns 24 firms who had made returns, was as follows:—

Millwrights, fitters, turners, planers, and machine-men	976
Smiths, boiler-makers, &c.	354
Moulders	297
Others, including labourers	1149
Total	2776

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